CLAIMS

We claim:

1. A method for delivery of a drug to a selected site in a patient comprising:

(a) administering to said patient a composition comprising a micellar drug carrier having a hydrophobic core and an effective amount of said drug disposed in said hydrophobic core; and

(b) applying ultrasonic energy to said selected site such that said drug is released from said hydrophobic core to said selected site.

2. The method of claim 1 wherein said micellar drug carrier is an ABA-triblock copolymer.

3. The method of claim 2 wherein said ABA-triblock copolymer is a poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer.

4. The method of claim 3 wherein said poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer has a molecular weight of about 6500.

5. The method of claim 1 wherein said drug is hydrophobic.

6. The method of claim 5 wherein said hydrophobic drug is an anthracycline.

7. The method of claim 6 wherein said anthracycline is doxorubicin.

8. The method of claim 6 wherein said anthracycline is ruboxyl.

9. A composition for delivery of a hydrophobic drug to a selected site in a patient comprising a micellar drug carrier having a hydrophobic core and an effective amount of said hydrophobic drug disposed in said hydrophobic core.

10. The composition of claim 9 wherein said micellar drug carrier is an ABA-triblock copolymer.

11. The composition of claim 10 wherein said ABA-triblock copolymer is a poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer.

12. The composition of claim 11 wherein said poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer has a molecular weight of about 6500.

13. The composition of claim 9 wherein said hydrophobic drug is an anthracycline.

14. The composition of claim 13 wherein said anthracycline is doxorubicin.

15. The composition of claim 13 wherein said anthracycline is ruboxyl.

16. A method for enhancing uptake of a drug by cells at a selected site in a patient comprising:

(a) administering to said patient a composition comprising a micellar drug carrier having a hydrophobic core and an effective amount of said drug disposed in said hydrophobic core; and

(b) applying ultrasonic energy to said selected site such that said drug is released from said hydrophobic core and taken up by said cells.

17. The method of claim 16 wherein said micellar drug carrier is an ABA-triblock copolymer.

18. The method of claim 17 wherein said ABA-triblock copolymer is a poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer.

19. The method of claim 18 wherein said poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer has a molecular weight of about 6500.

20. The method of claim 16 wherein said drug is hydrophobic.

21. The method of claim 20 wherein said hydrophobic drug is an anthracycline.

22. The method of claim 21 wherein said anthracycline is doxorubicin.

23. The method of claim 21 wherein said anthracycline is ruboxyl.

24. A method for reducing side effects in a patient from administration of a drug comprising:

(a) administering to said patient a composition comprising a micellar drug carrier having a hydrophobic core and an effective amount of said drug disposed in said hydrophobic core; and

(b) applying ultrasonic energy to said patient such that said drug is released from said hydrophobic core.

25. The method of claim 24 wherein said micellar drug carrier is an ABA-triblock copolymer.

26. The method of claim 25 wherein said ABA-triblock copolymer is a poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer.

27. The method of claim 26 wherein said poly(ethylene oxide)-poly(propylene oxide)-poly(ethylene oxide) block copolymer has a molecular weight of about 6500.

28. The method of claim 24 wherein said drug is hydrophobic.

29. The method of claim 28 wherein said hydrophobic drug is an anthracycline.

30. The method of claim 29 wherein said anthracycline is doxorubicin.

31. The method of claim 29 wherein said anthracycline is ruboxyl.